

**REQUEST FOR BID FOR THE
CERTIFIED OPERATION OF THE WASTEWATER TREATMENT FACILITIES (STP)
AT THE VANDERBURGH COVE SUBDIVISION
COVE ROAD, TOWNS OF RHINEBECK & HYDE PARK, NY**

CONTRACT BID PACKAGE

**TOWN OF RHINEBECK
80 EAST MARKET ST.
RHINEBECK, NY 12572**

October 30, 2012

**THIS MANUAL TO BE SUBMITTED TO RHINEBECK TOWN CLERK
WITH CONTRACTOR'S BID**

NOTICE TO BIDDERS

Requests for Bids are sought and invited by the Town of Rhinebeck to provide Certified Operation of the Vanderburgh Cove Sewer District. This Proposal covers the standards to provide the requirements for the daily operation, monitoring and testing for the treatment systems and inspection of the Collection system known as The Vanderburgh Cove Sewer District as described in the SPDES Permit # 0099295, for outfall 001 and 002, for operation of both the north and south fields.

Bids will be received by the Town Clerk of the Town of Rhinebeck, 80 East Market Street, NY 12572, until November 26, 2012. The bids will be opened and reviewed at this time. The contract period for this work, if and when it is awarded, shall begin and end on dates to be determined by the Rhinebeck Town Board, but shall in any event be for approximately 12 months.

The Operator will supply all labor, transportation, and materials (as noted) required to provide these operation services in their entirety, for the period mentioned herein.

All proposal documents and contract documents, including specifications governing the contract, may be examined free of charge at the Town of Rhinebeck, Town Hall between the hours of 9:00 AM and 3:00 PM beginning on November 2, 2012.

Copies of the Proposal Documents may be obtained at the Town Hall, Town of Rhinebeck, 80 East Market Street, Rhinebeck, NY 12572, on or after November 2, 2012. Pursuant to the provisions of GML 102, persons desiring to take a copy may obtain them, the standard non-refundable deposit is waived for this bid.

Each Bidder must provide a letter with their proposal indicating that they will be able to provide the certified manpower required to meet the SPDES Permit requirements for the dates specified and subject to the Notice of Contract Signing by the Town Board..

No proposal will be accepted unless the signed Certification of Non-Collusion is submitted with the proposal.

The Town of Rhinebeck expressly reserves the right to waive any irregularities in or to accept any bid or to reject any and all bids or to award on any or all items, as the interest of the Town may appear to require.

No bidder may withdraw his/her bid within forty-five (45) days after the actual date of the bid opening.

By: Jon Gautier
Town Clerk
Town of Rhinebeck
October 30, 2012

INSTRUCTIONS TO BIDDERS

1. Components of Bid Package

Requests for Bids are sought and invited by the Town of Rhinebeck to provide Certified Operation of the Vanderburgh Cove Sewer District. This Proposal covers the standards to provide the requirements for the daily operation, monitoring and testing for the treatment systems known as The Vanderburgh Cove Sewer District as described in the SPDES Permit # 0099295, for outfall 001 and 002, for both the north and south fields, This is as set forth herein.

All Operators will take notice, review, and complete these components in order to offer a bid for the services described.

The components are:

- Instructions to Bidders
- Insurances
- Bid Form
- Certification of Non-Collusion by Bidder
- Contract Agreement
- Certificate As to Corporate Principal
- Prevailing Wage Rates
- Technical Specifications

2. Scope of Work

- A. The Operator will furnish and supply all labor, transportation, insurance coverage, certificates, and materials (as noted) required to provide these wastewater treatment plant and collection system operation services in their entirety, for approximately one year, and as further called for in these contract documents.

3. Qualifications of Bidders

The law requires that contracts for public work in the State of New York be awarded to the lowest responsible bidder as will promote the public interest. In order to assist the Town in determining whether the apparent low bidder meets this standard, the Town requires the Operator to submit the following:

To furnish the Town with this request a statement containing the following :

- (a) a description (including project name, location and owner) of any competitively bid project on which the bidder submitted the low bid but was not awarded a contract, within the previous five (5) years,
- (b) a current detailed financial statement showing assets, liabilities and net

worth, net total billings and average backlogs of uncompleted work on outstanding contracts for each of the previous three (3) years,

- (c) a list of the officers and principals of the bidder's legal entity, and a list of all subsidiary or affiliated companies in which the bidder's principals have any financial interest,
- (d) a description of any projects which the bidder or his predecessors failed to complete or any litigation in which the bidder has been involved in the previous three (3) years, including a list of project names, locations and owners,
- (e) a list and description of all contracts completed by the bidder within the previous three (3) years,
- (f) a list of at least three (3) project references (including project names, locations, owners, contact persons, and current telephone numbers) which included work similar in scope, complexity, and material value as this proposed project. To expedite the award process, provide references with Bid documents.

4. Preparation of Bids

Prepare the bid on the official Bid Form included in these documents. Fill in all blank spaces legibly. The Bid Form must contain an original signature.

5. Contract Cost Breakdown

All Operators shall complete the Bid Sheets provided in this package, which may include a cost breakdown of the items listed. The cost breakdown shall be used to assess the responsibilities of the bid and compare major cost areas of materials for each bidder.

6. Basis of Payment

The Operator will be paid on a monthly basis, pursuant to proper and timely submittal, review and approval of the Invoices and Town Voucher Forms, in accord with the Town's process.

7. Site Conditions

The Owner does not guarantee the location of pipes, drains, ducts, utilities, and other underground structures. The information given is intended only as a guide to the Operator.

By submission of a bid, the Operator agrees and represents that he/she has visited the site prior to the time of submitting the bid and has inspected and given consideration to the conditions under which the work is to be performed. In addition, the Operator shall carefully examine the site of the proposed work. The bidder shall satisfy and fully inform

himself/herself from his/her own investigation or research as to ;

- * the nature and location of the work,
- * the general and local conditions,
- * the various means of approach to the sites,
- * the sites and facilities for delivering, unloading, storage, and handling of materials and equipment,
- * the character, quality, and quantity of existing materials,
- * the kind and extent of equipment, labor, materials, & facilities needed,
- * all difficulties likely to be encountered,
- * the temperature sensitivity of the products to be used

and all other items, which may in any way affect the work or its performance in accordance with the contract requirements.

By submission of a bid, the Operator agrees and represents that he/she is properly qualified to perform and has sufficient time to devote to performance of the work.

8. Insurance

Simultaneously with the execution of the contract, the Operator shall provide at his/her own cost and expense, proof of the following insurance to the Town, in the form of a Certificate of Insurance:

- (a) Statutory Workers' Compensation coverage, in compliance with the Compensation Law of the State of New York, (Acord forms not acceptable).
- (b) General Liability Insurance coverage in the comprehensive general liability form including blanket contractual coverage for the operation of the program under the Agreement in the amount of \$1,000,000 combined single limit for bodily injury and property damage, including XCU coverage. The Town must be listed as additional insured.
- (c) Automobile liability insurance coverage for all owned, leased, or non-owned vehicles in the amount of \$1,000,000 per occurrence. This insurance shall include coverage for bodily injury and property damage. The Town must be listed as additional insured.
- (d) The Town reserves the right to require special form builder's risk insurance coverage for the completed value of all construction and structures placed or constructed under this Contract, at an additional cost to Owner. The Town must be listed as additional insured.
- (e) The Town reserves the right to require Owner's and Contractor's protective liability coverage in favor of the Town in the amount of \$1,000,000.

Prior to cancellation or material change in any policy, a thirty (30) day notice shall be given to the Town Clerk by registered mail, return receipt requested, at the address listed

below:

Town of Rhinebeck Town Clerk
Town Hall – 80 East Market Street
Rhinebeck, NY 12572

Upon receipt of such notice the Town shall have the option to cancel the Agreement without further expense or liability to the Town, or to require the Contractor to replace the cancelled insurance policy, or rectify any material change in the policy, or to purchase insurance coverage itself and charge-back the Contractor, so that the insurance coverage required is maintained continuously throughout the term of the Agreement in form and substance acceptable to the Town. Failure of the Contractor to take out or to maintain, or the taking out or maintenance of any required insurance, shall not relieve the Contractor from any liability under the Contract, nor shall the insurance requirements be construed to conflict with the obligations of the Contractor concerning indemnification.

All property losses shall be made payable to and adjusted with the Town.

All insurance policies referred to above shall be underwritten by companies authorized to do business in the State of New York and acceptable to the Town.

In the event that claims in excess of these amounts are filed by reason of any operations under the Agreement, the amount of excess of such claims, or any portion thereof, may be withheld from payment due or to become due the Contractor until such time as the Contractor shall furnish such additional security concerning such claims as may be determined by the Town.

9. Right to Cancel

The Town shall have the right to cancel this contract for any reason on thirty (30) days prior notice to the Operator.

BID FORM

TO: The Town Board of the Town of Rhinebeck.

In compliance with the Notice to Bidders, as dated _____, the undersigned, _____ proposes and agrees as follows:

1. Requests for Bids are sought by the Town of Rhinebeck to provide Certified Wastewater Operation of the Vanderburgh Cove Sewer District. This Proposal covers the standards to provide the requirements for the daily operation, monitoring and testing for the treatment systems and inspections of the collection systems known as The Vanderburgh Cove Sewer District as described in the **SPDES Permit # 0099295**, for outfalls 001 and 002, (both the north and south fields), and further as set forth herein.
2. The Operator will furnish and supply all labor, transportation, insurance coverage, certificates, and materials (as noted) required to provide these wastewater treatment plant and collection system operation services in their entirety, for the period mentioned, and as further called for in these contract documents.

The Notice to Proceed shall be issued by the Town Board.

3. To furnish the Town with this request, in the evaluation of the apparent low bidder and as requested by the Town, a statement of qualifications as described in Article 3 of Instructions to Bidders.
4. To enter into a contract within five (5) to ten (10) calendar days from the date of acceptance of this bid.

In compliance with the Instructions to Bidders, the undersigned declares that he/she has examined the specifications and informed himself/herself fully in regard to all conditions pertaining to the work required. The Operator has thoroughly and completely examined the specifications for the work, the contract documents relating thereto, and has visited the work sites, has read all addenda furnished prior to the opening of bids, and has satisfied himself/herself relative to the work to be performed.

ADDENDA:

Receipt of the following addenda (*if any*) is hereby acknowledged:

<u>DATE</u>	<u>SIGNATURE</u>
ADDENDUM NO. 1	_____
ADDENDUM NO. 2	_____

The bidder proposes to perform the work required in accordance with the Contract Documents and the prices listed on the Bid Sheet; Dated: _____, 2012

Total Bid: The Vendor shall provide Certified Wastewater Operation of the Vanderburgh Cove Sewer District. This shall include providing the requirements for the daily operation, monitoring and testing for the treatment systems known as The Vanderburgh Cove Sewer District as described in the SPDES Permit # 0099295, for outfalls 001 and 002, (both the north and south fields), and as intended to meet the SPDES Permit limits, levels and monitoring requirements.

Base Bid : w/ prevailing rates

In words

\$ _____

In figures

Alternate Bid : w/o prevailing rates

In words

\$ _____

In figures

Cost Breakdown :

Monthly Operation : _____
[includes daily monitoring & testing]

Emergency Service Calls : _____
[on an as needed basis – hourly fee]

Collection System Inspections : _____
[collection shall be inspected on a semi-annual basis - hourly fee]

SIGN BID HERE

Authorized Signature

Date

Printed Name

Title

Legal Company Name

Address

City, State, Zip

Telephone No.

Federal I.D. #

Email

CERTIFICATION OF NON-COLLUSION BY BIDDER

(1) The prices in this bid have been arrived at independently, without collusion, consultation, communication, or agreement for the purpose of restricting competition as to any matter relating to such prices, with any other bidder or with any competitor.

(2) Unless otherwise required by law, the prices which have been quoted in this bid have not knowingly been disclosed by the bidder and will not knowingly be disclosed by the bidder, directly or indirectly, to any other bidder or to any competitor, before the time of the bid opening.

(3) No attempt has been made or will be made by the bidder to induce any other person, partnership, or corporation to submit or not to submit a bid for the purpose of restricting competition.

A bid shall not be considered for award nor shall any award be made where (1), (2) and (3) above have not been complied with; provided however, that if in any case the bidder cannot make the foregoing certification, the bidder shall so state and shall furnish with the bid a signed statement which sets forth in detail the reasons therefore. Where (1), (2) and (3) above have not been complied with, the bid shall not be considered for award nor shall any award be made unless the Town Clerk of the Municipality to which the bid is made, or his/her designee, determines that such disclosure was not made for the purpose of restricting competition.

(4) The fact that a bidder (a) has published price lists, rates, or tariffs, covering items being procured, (b) has informed prospective customers of proposed or pending publication of new or revised price lists for such items, or (c) has sold the same items to other customers at the same prices being bid, does not constitute, without more, a disclosure within the meaning of subparagraph (1).

(5) Any bid hereafter made to any public authority or to any official of any public authority created by the State or any political subdivision, by a corporate bidder for work of services performed or to be performed or goods sold or to be sold where competitive bidding is required by statute, rule, regulation, or local law, and where such bid contains the certification referred to in the lead paragraph of this section, shall be deemed to have been authorized by the board of directors of the bidder and such authorization shall be deemed to include the signing and submission of the bid and the inclusion therein of the certificate as to non-collusion as the act and deed of the corporation/partnership/individual.

(State of NEW YORK)
(County of _____)

Sworn to before me this _____ day
of _____, 20____.

Notary Public

(officer's/partner's/ individual's) name printed

(officer's/partner's/individual's) signature

(Corp./Partnership/Individual) name printed

(Corp./Partnership/Individual) signature

TOWN BOARD

TOWN OF RHINEBECK, NEW YORK

CONTRACT AGREEMENT

THIS AGREEMENT, made and executed this _____ day of _____, in the year Two Thousand and ___, by and between the Town Board, Town of Rhinebeck and, _____ the Operator,

WITNESSETH: in consideration of the mutual agreements herein contained the parties hereto have agreed and hereby agree with each other, the Town, its successors and assigns, and the Operator, and his/her successors and assigns, as follows:

The Town Board, Town of Rhinebeck, New York agrees to pay and the Operator agrees to accept a total Contract Price of:

_____ (\$) _____
for the proper operation of both wastewater treatment systems within the Vanderburgh Cove Sewer District.

The Operator will furnish all labor, materials and equipment required in the Specifications

The Operator will furnish and supply all labor, transportation, insurance coverage, certificates, and materials (as noted) required to provide these wastewater treatment plant and collection system operation services in their entirety, for the period noted, and as further outlined in these contract documents. The Operator shall perform his duties as necessary and proper for or incidental to the completion of a workmanlike job, complete in every respect and detail, left ready and in orderly condition for the proper operation of the sewerage systems.

The Operator acknowledges that a delay in performance of these duties may result in additional expenses (including fines) to the Town. Therefore, the Operator will respond in a timely manner to regulatory inquiries, requests, and reporting timetables.

The Operator, by placing his/her signature on this Contract, hereby certifies that he/she has read and is aware, cognizant, and knowledgeable of the contents of all bid documents and the contract documents, and is familiar with the project site(s), and he/she agrees to abide by and be bound by their contents and by all applicable federal, state, county and local laws, ordinances and statutes.

The Operator, by placing his/her signature on this Contract, hereby acknowledges and agrees to abide by any/all applicable prevailing wage rates during the Contract term.

Monthly Payments, will be made after submittal to, review and approval by the Town Board. The Operator agrees to begin work on the day specified in the Town's Notice to Proceed.

This Contract may be cancelled for any reason by the Town on thirty (30) days notice to the Operator.

(Corporate Seal if applicable)

(Officer's/Partner's/Individual's) signature

(Officer's/Partner's/Individual's) name printed

(Corporation/Partnership/Individual) name printed

STATE of _____)

COUNTY of _____) ss:

On this _____ day of _____, 20____.

before me personally came _____ to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged that he/she executed the same.

Notary Public, _____ County

No. _____ Term Expires _____

Town Board, Town of Rhinebeck (Owner)

Attest By: _____
Signature Name (printed)

Title (printed) date

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the
_____ of the corporation named as principal in the within bond; that
_____ who signed the said bond on behalf of the principal, was then
_____ of said corporation; that I know his signature, and his signature
thereto is genuine; and that said bond was duly signed, sealed, and attested for and in behalf of
said corporation of its governing body.

_____ (Corporate Seal)

INSTRUCTIONS

The name, including full given name, and business or residence address of each individual party to the bond shall be inserted in the space provided therefore, and each such party shall sign the bond with his usual signature on the line opposite the scroll seal.

If the principals are partners, their individual names shall appear in the space provided therefor, with the recital that they are partners composing a firm, naming it, and all the members of the firm shall execute the bond as individuals.

If the principal or surety is a corporation, the name of the state in which incorporated shall be inserted into the space provided therefor, and said instrument shall be executed and attested under the corporate seal as indicated in the form. If the corporation has no corporate seal the fact shall be stated in which case, a scroll or adhesive seal shall appear following the corporate name.

The official character and authority of the person or persons executing the bond for the principal, if a corporation, shall be certified by the secretary or the assistant secretary, according to the form herein provided. In lieu of such certificate there may be attached to the bond copies of so much of the records of the corporation as will show the official character and authority of the officer signing, duly certified by the secretary or assistant secretary, under the corporate seal, to be true copies.

PROJECT SUMMARY & WORK SCOPE

The Total Base Bid shall include the following work scope :

The Certified Operator Shall :

- Comply with all requirements of the Vanderburgh Cove Sewer District SPDES Permit and report any violations of same
- Comply with all requirements of the District Sewer Use Ordinance, and report any violations of same
- Provide Daily operation, monitoring, sampling, testing and reporting for both treatment systems, outfalls 001 & 002
- Prepare and submit all monitoring information, in a Report form (DMR) as required by the SPDES Permit, provide same to those listed on the Permit in a timely manner, and also to the Town Supervisor, the Town Clerk, and Town Engineer
- Calibrate and clean the chlorine pump and sensing probes as necessary to maintain the proper effluent disinfection, and provide daily testing and observation of the treatment processes
- Provide semi-annual inspection of the entire Collection system, and report the findings in writing, this is provided for on an hourly fee basis as quoted herein
- Report any/all deficiencies which he/she may find during performance of the daily inspections, to the Town of Rhinebeck and also to the Town Engineer
- Monitor, schedule and supervise the need for pumping of the systems tanks, especially during rainfall events
- Provide a recommendation for laboratory services for the monthly testing requirements
- Transport all required samples to the chosen laboratory, as necessary for Permit Compliance
- Provide a copy of the Operator's Certification as required to Operate this size and type of wastewater facility(s); including BioClear Treatment Systems, leach fields, equalization, dosing/pumping, aeration, chlorination to meet all Permit requirements, with Flows of approx. 8,000 gallons per day from each outfall
- Provide all Insurance Certificates as required within this document
- Provide the cost of daily sampling, including lab and safety wear, test kits, and test reagents
- Perform all duties in a workmanlike manner making every effort to maintain SPDES Permit compliance
- Provide Emergency Service Calls, provided on an hourly fee basis as quoted herein
- Provide Operator emergency contact phone numbers, and information
- Submit an Invoice and Town Voucher for payment for services each month

IT IS ESTIMATED THAT THE SERVICES OUTLINED HEREIN INCLUDE APPROXIMATELY 65 TO 70 HOURS PER MONTH, TO MEET THE SPDES PERMIT REQUIREMENTS.

The Vanderburgh Cove Sewer District [District] AND/OR the Town of Rhinebeck [Town] Shall be Responsible for costs associated with :

- Maintenance of the facilities ; such as, repairs of the system components, i.e., sewage pumps, chlorine feed pumps, storage crocks, chlorine sensors, tanks, septic, contact, leach and outfall components of the systems (both fields).
- Provide for periodic pumping (especially during rain events) of the tank structures, as recommended and scheduled by the System Operator
- Supply disinfection products for effluent disinfection
- Emergency repairs as needed to maintain Permit compliance
- Cover the costs for all certified laboratory analysis
- Cover the costs for all electrical utility requirements
- Maintain proper access to both of the sites

The Certified Operator Shall also be Responsible to report system conditions, coordinate work, order supplies, coordinate and schedule repairs with vendors and/or contractors, make recommendations for and advise the Town and its representative of any/all issues, and obtain cost estimates for the above items :



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
State Pollutant Discharge Elimination System (SPDES)
DISCHARGE PERMIT

First3.99

Industrial Code:	4952	SPDES Number:	NY0099295
Discharge Class (CL):	07	DEC Number:	3-1350-00042/00002
Toxic Class (TX):	N	Effective Date (EDP):	12/01/2010
Major Drainage Basin:	13	Expiration Date (ExDP):	11/30/2015
Sub Drainage Basin:	01	Modification Dates:(EDPM)	02/01/2012
Water Index Number:	H (87.5)		
Compact Area:			

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the Clean Water Act, as amended, (33 U.S.C. §1251 et.seq.)(hereinafter referred to as "the Act").

PERMITTEE NAME AND ADDRESS

Name:	Town of Rhinebeck	Attention:	Tom Traudt, Supervisor
Street:	80 East Market Street		
City:	Rhinebeck	State:	NY Zip Code: 12572

is authorized to discharge from the facility described below:

FACILITY NAME AND ADDRESS

Name:	Vanderburgh Cove Sewer District #1	County:	Dutchess
Location (C,T,V):	Rhinebeck		
Facility Address:	Cove Road	State:	NY Zip Code: 12572
City:	Rhinebeck	NYTM - N:	
NYTM -E:		From Outfall No.:	001 at Latitude: 41 ° 52 ' 42 " & Longitude: 73 ° 55 ' 25 "
into receiving waters known as:	Hudson River	Class:	A

and; (list other Outfalls, Receiving Waters & Water Classifications)
Outfall 002 (south) Lat 41 52 26 Lon 73 55 31 To Hudson River Class A

in accordance with: effluent limitations; monitoring and reporting requirements; other provisions and conditions set forth this permit; and 6 NYCRR Part 750-1.2(a) and 750-2.

DISCHARGE MONITORING REPORT (DMR) MAILING ADDRESS

Mailing Name:	Town of Rhinebeck	State:	NY Zip Code: 12572
Street:	80 East Market Street	Phone:	(845)876-3409
City:	Rhinebeck		
Responsible Official or Agent:	Tom Traudt, Supervisor		

This permit and the authorization to discharge shall expire on midnight of the expiration date shown above and the permittee shall not discharge after the expiration date unless this permit has been renewed, or extended pursuant to law. To be authorized to discharge beyond the expiration date, the permittee shall apply for permit renewal not less than 180 days prior to the expiration date shown above.

DISTRIBUTION:

CO BWP - Permit Coordinator
 RWE
 RPA
 EPA Region II - Michelle Josilo
 NYSEFC
 NYSDOH District Office

Deputy Chief Permit Administrator: Stuart M. Fox	
Address: Division of Environmental Permits 625 Broadway Albany, NY 12233-1750	
Signature: <i>Stuart M. Fox</i>	Date: 12/28/11

PERMIT LIMITS, LEVELS AND MONITORING DEFINITIONS

L:\DOWN\SPDES\FORMS\REORGANIZED PERMIT FORMS\10 Easy permits\trnd EZ.wpd

OUTFALL	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING	
	This cell describes the type of wastewater authorized for discharge. Examples include process or sanitary wastewater, storm water, non-contact cooling water.	This cell lists classified waters of the state to which the listed outfall discharges.	The date this page starts in effect. (e.g. EDP or EDPM)	The date this page is no longer in effect. (e.g. ExDP)	
PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQ.	SAMPLE TYPE
e.g. pH, TRC, Temperature, D.O.	The minimum level that must be maintained at all instants in time.	The maximum level that may not be exceeded at any instant in time.	SU, °F, mg/l, etc.		

PARA-METER	EFFLUENT LIMIT	PRACTICAL QUANTITATION LIMIT (ML)	ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE
	Limit types are defined below in Note 1. The effluent limit is developed based on the more stringent of technology-based standards, required under the Clean Water Act, or New York State water quality standards. The limit has been derived based on existing assumptions and rules. These assumptions include receiving water hardness, pH and temperature; rates of this and other discharges to the receiving stream; etc. If assumptions or rules change the limit may, after due process and modification of this permit, change.	For the purposes of compliance assessment, the analytical method specified in the permit shall be used to monitor the amount of the pollutant in the outfall to this level, provided that the laboratory analyst has complied with the specified quality assurance/quality control procedures in the relevant method. Monitoring results that are lower than this level must be reported, but shall not be used to determine compliance with the calculated limit. This ML can be neither lowered nor raised without a modification of this permit.	Action Levels are monitoring requirements, as defined below in Note 2, that trigger additional monitoring and permit review when exceeded.	This can include units of flow, pH, mass, Temperature, concentration. Examples include µg/l, lbs/d, etc.	Examples include Daily, 3/week, weekly, 2/month, monthly, quarterly, 2/yr and yearly.	Examples include grab, 24 hour composite and 3 grab samples collected over a 6 hour period.

Note 1: DAILY DISCHARGE: The discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for the purposes of sampling. For pollutants expressed in units of mass, the 'daily discharge' is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the 'daily discharge' is calculated as the average measurement of the pollutant over the day. **DAILY MAX:** The highest allowable daily discharge. **DAILY MIN:** The lowest allowable daily discharge. **MONTHLY AVG (daily avg):** The highest allowable average of daily discharges over a calendar month, calculated as the sum of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. **RANGE:** The minimum and maximum instantaneous measurements for the reporting period must remain between the two values shown. **7 DAY ARITHMETIC MEAN (7 day average):** The highest allowable average of daily discharges over a calendar week. **12 MRA (twelve month rolling avg):** The average of the most recent twelve month's monthly averages. **30 DAY GEOMETRIC MEAN (30 d geo mean):** The highest allowable geometric mean of daily discharges over a calendar month, calculated as the antilog of: the sum of the log of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. **7 DAY GEOMETRIC MEAN (7 d geo mean):** The highest allowable geometric mean of daily discharges over a calendar week.

Note 2: ACTION LEVELS: Routine Action Level monitoring results, if not provided for on the Discharge Monitoring Report (DMR) form, shall be appended to the DMR for the period during which the sampling was conducted. If the additional monitoring requirement is triggered as noted below, the permittee shall undertake a short-term, high-intensity monitoring program for the parameter(s). Samples identical to those required for routine monitoring purposes shall be taken on each of at least three consecutive operating and discharging days and analyzed. Results shall be expressed in terms of both concentration and mass, and shall be submitted no later than the end of the third month following the month when the additional monitoring requirement was triggered. Results may be appended to the DMR or transmitted under separate cover to the same address. If levels higher than the Action Levels are confirmed, the permit may be reopened by the Department for consideration of revised Action Levels or effluent limits. The permittee is not authorized to discharge any of the listed parameters at levels which may cause or contribute to a violation of water quality standards. The additional monitoring requirement is triggered upon receipt by the permittee of any monitoring results in excess of the stated Action Level.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL No.	LIMITATIONS APPLY:	RECEIVING WATER	EFFECTIVE	EXPIRING
001/002	All Year unless otherwise noted	Hudson River	02/01/2012	11/30/2015

PARAMETER	EFFLUENT LIMIT					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly average	8000			gpd	Continuous	Totalized	x	x	
BOD ₅	Monthly average	30	mg/l	2.0	lbs/d	1/Month	4 Hour Composite	x	x	(1)
BOD ₅	7 day average	45	mg/l	3.0	lbs/d	1/Month	4 Hour Composite	x	x	
Solids, Suspended	Monthly average	30	mg/l	2.0		1/Month	4 Hour Composite	x	x	(1)
Solids, Suspended	7 day average	45	mg/l	30.	lbs/d	1/Month	4 Hour Composite	x	x	
Solids, Settleable	Daily Max.	0.1	ml/l			Daily	Grab		x	
pH	Range	6.5-8.5	SU			Daily	Grab		x	
Temperature	Monitor	Monitor	Deg. F			Daily	Grab		x	
Effluent Disinfection required: <input checked="" type="checkbox"/> All Year <input type="checkbox"/> Seasonal from _____ to _____										
Coliform, Fecal	30 day geometric mean	200	No./100 ml			1/Month	Grab		x	
Coliform, Fecal	7 day geometric mean	400	No./100 ml			1/Month	Grab		x	
Chlorine, Total Residual	Daily Max.	2.0	mg/l			Daily	Grab		x	

FOOTNOTES: (1) Effluent shall not exceed 15 % and 15 % of influent concentration values for BOD₅ & TSS respectively.
 (2) Ultimate Oxygen Demand shall be computed as follows: UOD = 1.5 X CBOD₅ + 4.5 X TKN (Total Kjeldahl Nitrogen).

Evaluation Report: On January 1st of each year, the permittee must submit an evaluation report to DEC for the review and approval that includes the alternatives analysis and identifies the chosen measures developed during the past year's evaluation of the sanitary sewer system. The report must be developed and signed by a professional; engineer licensed in New York State. The report shall include a schedule to construct and implement the chosen measures. Upon approval by DEC, the schedule shall become part of, and enforceable under the SPDES permit.

Progress: The permittee must also include in the evaluation report above:

A section containing information on the progress made on the approved program and schedule during the previous year;

A summary of the implementation of the training program;

Information on the effectiveness and performance of measures that have been previously implemented; and,

A discussion of issues such as funding, legal authority and preventative maintenance and how these issues impact the program. If these issues are preventing implementation of the program, the report must describe the efforts made to develop appropriate responses to these issues so the program may move forward.

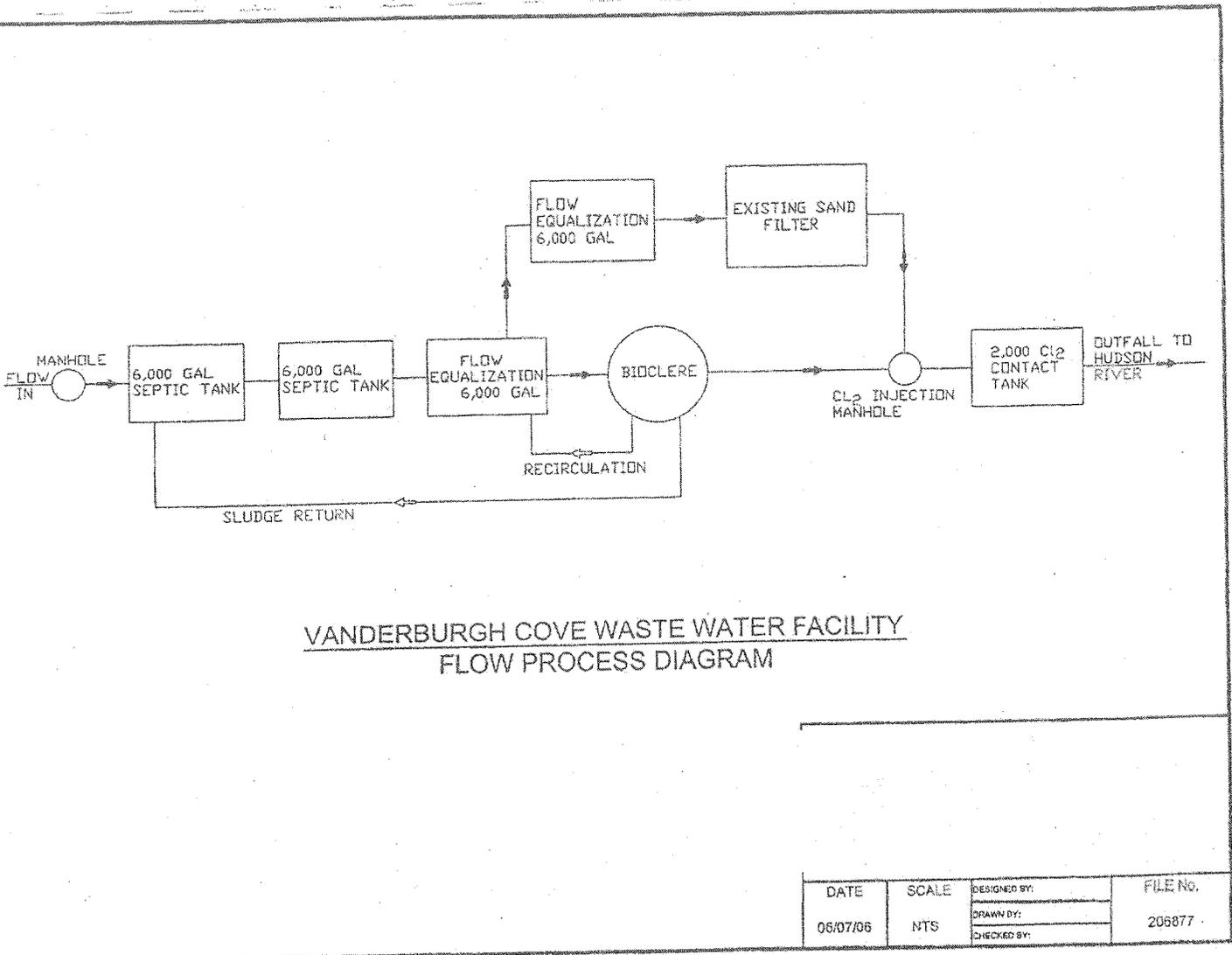
DISCHARGE NOTIFICATION REQUIREMENTS - *Sign Maintenance:* The permittee shall periodically inspect the outfall identification sign(s) in order to ensure they are maintained, are still visible, and contain information that is current and factually correct. Signs that are damaged or incorrect shall be replaced within 3 months of inspection. - *Data Retention:* The permittee shall retain records for a minimum period of 5 years in accordance with 6NYCRR Part 750-1.12(b)(2) and Part 750-2.5(c)(1). These records, which include discharge monitoring reports (DMRs) and annual reports, must be retained at a repository accessible to the public. This repository shall be open to the public, at a minimum, during normal daytime business hours. The repository may be the business office, wastewater treatment plant, village, town, city, or county clerk's office, the local library, or other location approved by the Department.

MERCURY MINIMIZATION PROGRAM

Mercury Minimization Program for Low Priority POTWs - The permittee shall inspect each tributary dental facility at least once every five years to verify compliance with the wastewater treatment operation, maintenance, and notification elements of 6NYCRR Part 374.4. Inspection and/or outreach to other industrial/commercial sectors which may contribute mercury is also recommended. All new or increased tributary discharges, including hauled wastes, which are from sources that are industrial in nature must be evaluated for mercury content and if levels exceed 500 ng/L then authorization must be obtained from the Department prior to acceptance. A file shall be maintained containing the notices submitted by dental offices and all other pertinent information. This file shall be available for review by DEC representatives and copies shall be provided upon request. Note that a permit modification may be necessary to include more stringent requirements for POTWs which do not maintain low mercury effluent levels.

MONITORING LOCATIONS

The permittee shall take samples and measurements, to comply with the monitoring requirements specified in this permit, at the location(s) specified below:



Sampling for Outfall 001 (North Plant) and 002(South Plant) must be conducted prior to contact with the Hudson River (after the Contact Tank).

RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

- a) The permittee shall also refer to 6 NYCRR Part 750-1.2(a) and 750-2 for additional information concerning monitoring and reporting requirements and conditions.
- b) The monitoring information required by this permit shall be summarized, signed and retained for a period of five years from the date of the sampling for subsequent inspection by the Department or its designated agent. **Also, monitoring information required by this permit shall be summarized and reported by submitting;**

(if box is checked) completed and signed Discharge Monitoring Report (DMR) forms for each ____ month reporting period to the locations specified below. Blank forms are available at the Department's Albany office listed below. The first reporting period begins on the effective date of this permit and the reports will be due no later than the 28th day of the month following the end of each reporting period.

(if box is checked) an annual report to the Regional Water Engineer at the address specified below. The annual report is due by February 1 and must summarize information for January to December of the previous year in a format acceptable to the Department.

(if box is checked) a monthly "Wastewater Facility Operation Report..." (form 92-15-7) to the:

Regional Water Engineer and/or County Health Department or Environmental Control Agency specified below

Send the DMRs with original signatures to:

Department of Environmental Conservation
Division of Water
Bureau of Water Compliance Programs
625 Broadway
Albany, New York 12233-3506

Phone: (518) 402-8177

Send a copy of each DMR page to:

Department of Environmental Conservation
Regional Water Engineer
100 Hillside Avenue, Suite 1 W
White Plains, NY 10603-2860

Phone: 913-428-2505

Send an additional copy of each DMR page to:

Dutchess County Health Department
387 Main Street 3rd Floor
Poughkeepsie, New York 12601

- c) Noncompliance with the provisions of this permit shall be reported to the Department as prescribed in 6 NYCRR Part 750-1.2(a) and 750-2.
- d) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.
- e) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculations and recording of the data on the Discharge Monitoring Reports.
- f) Calculation for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
- g) Unless otherwise specified, all information recorded on the Discharge Monitoring Report shall be based upon measurements and sampling carried out during the most recently completed reporting period.
- h) Any laboratory test or sample analysis required by this permit for which the State Commissioner of Health issues certificates of approval pursuant to section five hundred two of the Public Health Law shall be conducted by a laboratory which has been issued a certificate of approval. Inquiries regarding laboratory certification should be sent to the Environmental Laboratory Accreditation Program, New York State Health Department Center for Laboratories and Research, Division of Environmental Sciences, The Nelson A. Rockefeller Empire State Plaza, Albany, New York 12201.

MUNICIPAL FACT SHEET

Treatment Plant Description

The Rhinebeck(T) Vanderburgh Cove SD#1 was constructed to provide treatment for a design flow of **8,000 gpd**. Current treatment includes primary settling, aerated flow equalization, bioClere unit and chlorination.

Background Information

The current SPDES permit NY0099295 for the Vanderburgh Cove WWTP became effective on **September 1, 2005**.

The facility currently has an EBPS score of 51. In response to the Department's 3/30/2010 Request for Information (RFI), the provided a Rhinebeck(T) Vanderburgh Cove SD#1 SPDES NY-2A permit application and sampling data for the on **August 5, 2010**.

A review of the facility's Discharge Monitoring Reports from **April 2006 to March 2010** shows that the facility did not meet the permit limit and requirements on the following:

Outfall 001

Parameter Desc	Limit Unit	Statistical Base	Mon. Period	Limit	DMR Value	% Exceedence
BOD, 5-day, percent removal	%	MO AV MN	2/28/2009	85.	71.	93
BOD, 5-day, percent removal	%	MO AV MN	3/31/2009	85.	80.	33
BOD, 5-day, percent removal	%	MO AV MN	4/30/2009	85.	82.	20
Coliform, fecal general	#/100 mL	30DA GEO	11/30/2005	200.	300.	50
Solids, suspended percent removal	%	MO AV MN	5/31/2005	85.	84.	7
Solids, suspended percent removal	%	MO AV MN	3/31/2009	85.	77.	53
Solids, suspended percent removal	%	MO AV MN	4/30/2009	85.	69.	107
Solids, suspended percent removal	%	MO AV MN	5/31/2009	85.	78.	47
Solids, suspended percent removal	%	MO AV MN	1/31/2010	85.	58.	180
Solids, suspended percent removal	%	MO AV MN	2/28/2010	85.	81.	27
Solids, suspended percent removal	%	MO AV MN	3/31/2010	85.	84.	7

Outfall 002

Parameter Desc	Limit Unit	Statistical Base	Mon. Period	Limit	DMR Value	% Exceedence
BOD, 5-day, 20 deg. C	mg/L	30DAARME	1/31/2010	30.	36.	20
BOD, 5-day, percent removal	%	MO AV MN	2/28/2009	85.	80.	33
BOD, 5-day, percent removal	%	MO AV MN	10/31/2009	85.	83.	13
BOD, 5-day, percent removal	%	MO AV MN	11/30/2009	85.	77.	53
BOD, 5-day, percent removal	%	MO AV MN	12/31/2009	85.0		
BOD, 5-day, percent removal	%	MO AV MN	1/31/2010	85.	55.	200
BOD, 5-day, percent removal	%	MO AV MN	2/28/2010	85.	53.	213
BOD, 5-day, percent removal	%	MO AV MN	3/31/2010	85.	58.	180
Coliform, fecal general	MPN/100m	7 DA GEO	6/30/2005	400.	500.	25
Flow rate	gal/d	30DA AVG	3/31/2009	8000.	17850.	123
Flow rate	gal/d	30DA AVG	3/31/2010	8000.	8120.	2
Solids, suspended, percent removal	%	MOAVMN	5/31/2005	85.	76.	60
Solids, suspended percent removal	%	MO AV MN	7/31/2005	85.	82.	20
Solids, suspended percent removal	%	MO AV MN	8/31/2009	85.	75.	67
Solids, suspended percent removal	%	MO AV MN	9/30/2009	85.	81.	27
Solids, suspended percent removal	%	MO AV MN	12/31/2009	85.	56.	193
Solids, suspended percent removal	%	MO AV MN	1/31/2010	85.	77.	53
Solids, suspended percent removal	%	MO AV MN	2/28/2010	85.0		
Solids, suspended percent removal	%	MO AV MN	3/31/2010	85.	83.	13
Solids, total suspended	lb/d	30DAARME	2/28/2010	2.	3.36	68
Solids, total suspended	lb/d	30DAARME	3/31/2010	2.	2.42	21
Solids, total suspended	lb/d	7DA ARME	2/28/2010	3.	3.36	12
Solids, total suspended	mg/L	30DAARME	2/28/2010	30.	112.	273
Solids, total suspended	mg/L	7DA ARME	2/28/2010	45.	112.	149

Summary of Proposed Permit Changes

The Schedule of Compliance has been removed from this permit and a Mercury minimization program has been added. Sampling for mercury is only required if a dental facility or an industrial discharger connects to the system (see page 4 of the permit).

Discharge Composition

Table 1 in Appendix A presents the existing effluent quality for the Rhinebeck(T) Vanderburgh Cove SD#1. The average and maximum concentration and mass reported are based on 5 years March 2005-March 2010 of Discharge Monitoring Report (DMR) data submitted by the permittee. Additional pollutants detected in the effluent were reported in the SPDES NY-2A permit application.

Outfall and Receiving Water Information

Treated sanitary wastewater is discharged though Outfall 001/002, located at latitude [41] ° [52]' [42]" and longitude [73]° [55]' [25]", into the Hudson River is classified as Class A by the Department with the following beneficial uses; The best usages of Class A waters are: a source of water supply for drinking, culinary or food processing purposes; primary and secondary contact recreation; and fishing. The waters shall be suitable for fish, shellfish, and wildlife propagation and survival.

The facility maintains the following outfalls:

Outfall No.	Design Flow Rate (MGD)	Latitude	Longitude	Receiving Water	Water Class	Water Index Number
001/002	0.008	41° 52' 26"	73° 55' 25"	Hudson River	A	H (87.5)

Critical flow and receiving water data is as follows:

Outfall No.	Receiving Water	7Q10 (MGD)	30Q10 (MGD)	Dilution/Mixing	pH (SU)	Temp (°C)	Hardness (mg/l)	Salinity
001/002								

Critical Flows

The 7Q10 flow was obtained from USGS Stream gauging information.

Dilution/Mixing Zone Analysis

Mixing zone analyses are conducted in accordance with the following documents:

1. EPA T.S.D, entitled "Water Quality Based Toxics Control," dated March, 1991.

2. EPA Region VIII "Mixing Zones and Dilution Policy", dated December, 1994.
3. TOGS 1.3.1, entitled "Total Maximum Daily Loads and Water Quality Based Effluent Limits."

Critical Receiving Water Data

PH, temperature, hardness and salinity values estimated using conservative assumptions.

303(d) Impaired Waterbody Information - not applicable

Year Listed	Cause/Pollutant	Suspected Source	High Priority Waters	TMDL Status	Applicable WLA

The 303(d) list identifies waters that do not support appropriate uses and that require development of a Total Maximum Daily Load (TMDL) or other restoration strategy. The Department may reopen the permit, pursuant to 6 NYCRR Part 621, to implement the Waste Load Allocation (WLA).

Effluent Limitations

NYSDEC followed the Clean Water Act, State and federal regulations, and the Division of Waters Technical and Operational Guidance Series documents for developing the effluent limits. In general, the Clean Water Act requires that the effluent limits for a particular pollutant are the more stringent of either the technology-based or water quality-based limits. A technology-based effluent limit requires a minimum level of treatment for municipal point sources based on currently available treatment technologies. A water quality-based effluent limit is designed to ensure that the water quality standards of receiving waters are being met. The table detailing the effluent limits is presented on Page[s] 2-3 of the draft permit. More information on the derivation of technology-based and water quality-based effluent limits is presented in Appendices A and B.

Monitoring Requirements

Section 308 of the Clean Water Act and federal regulations 40 CFR 122.44(i) require that monitoring be included in permits to determine compliance with effluent limitations. Additional effluent monitoring may also be required to gather data to determine if effluent limitations may be required. The Rhinebeck (T) Vanderburgh Cove SD#1 is responsible for conducting the monitoring and for reporting results on Discharge Monitoring Reports (DMRs) to NYSDEC.

Pages [2-3] of the draft permit present the monitoring requirements for the facility. Monitoring frequency is based on the minimum sampling necessary to adequately monitor the facility's performance. For municipal facilities, sampling frequency is based on the 1973 NYSDEC-USEPA Agreement as documented in TOGS 1.3.3.

Other Permit Conditions

Mercury Minimization Program

Permittees that have minimal mercury levels are required to inspect any potential sources of mercury that discharge to the POTW, including dental offices and other commercial/industrial sectors. All new and increased tributary discharges exceeding mercury levels of 500 ng/L must be approved by the Department prior to acceptance by the permittee.

Compliance Schedules - removed

Special Conditions

Additional Permit Provisions

Page 3 of the draft permit contains standard regulatory language that is/are required to be in all SPDES permits. These permit provisions are based largely upon 40 CFR 122, subpart C and include requirements pertaining to monitoring, recording, reporting, and compliance responsibilities.

Other Legal Requirements

Discharge Notification Act

In accordance with Discharge Notification Act ECL 17-0815-a, the permittee is required to post a sign at each point of wastewater discharge to surface waters. The permittee is also required to provide a public repository for DMRs as required by the SPDES permit.

Antidegradation Policy

New York State implements the antidegradation portion of the CWA based upon two documents:

1. Organization and Delegation Memorandum #85-40, entitled "Water Quality Antidegradation Policy," signed by the Commissioner of NYSDEC, dated September 9, 1985.
2. TOGS 1.3.9, entitled "Implementation of the NYSDEC Antidegradation Policy – Great Lakes Basin (Supplement to Antidegradation Policy dated September 9, 1985)."

A SPDES permit cannot be issued that would result in the water quality criteria being violated. The draft permit for **Vanderburgh Cove SD #1** contains effluent limits which ensure that the existing beneficial uses of the **Hudson River** will be maintained.

Appendix A

Basis for Effluent Limitations

Statutory and Regulatory Basis for Limits

Sections 101, 301(b), 304, 308, 401, 402, and 405 of the Clean Water Act (CWA) provide the basis for the effluent limitations and other conditions in the draft permit. The NYSDEC evaluates discharges with respect to these sections of the CWA and the relevant SPDES regulations to determine which conditions to include in the draft permit.

In general, the permit writer does a statistical analysis of the monitoring data provided in permittee-submitted discharge monitoring reports (DMRs). Pollutant screening data as required in the Request for Information are also reviewed to determine the presence of additional contaminants that should be considered for inclusion in the permit. The permit writer determines the technology-based limits that must be incorporated into the permit. The Department then evaluates the water quality expected to result from these controls to determine if any violations of water quality standards in the receiving water would result. If violations could occur, water quality-based limits must be included in the permit. The draft permit limits reflect whichever requirements, technology or water quality, are more stringent. The proposed limits are located on Page[s] 2-3 of the draft permit. This Appendix describes the technology-based and water quality-based evaluation.

Technology-Based Evaluation

The 1972 Clean Water Act required publicly owned treatment works (POTWs) to meet performance-based requirements based on wastewater treatment technology. Section 301 of the Act established a required performance level, referred to as "secondary treatment", which all POTWs were required to meet by July 1, 1977.

More specifically, Section 301(b)(1)(B) of the Clean Water Act requires that EPA develop secondary treatment standards for POTWs as defined in Section 304(d)(1) of the CWA. Based on this statutory requirement, EPA developed secondary treatment regulations which are specified in 40 CFR Part 133.102. These technology-based regulations apply to all municipal wastewater treatment plants and identify the minimum level of effluent quality attainable by secondary treatment in terms of five-day biochemical oxygen demand (BOD₅), total suspended solids, and pH. In addition to the federal regulations, settleable solids need to be monitored for Class A waters according to 6 NYCRR Part 703.2. In certain cases, special considerations may apply to POTWs that cannot meet traditional secondary treatment requirements "through proper operation and maintenance." The regulations in 40 CFR Part 133.105 states that if the principal treatment process is either a trickling filter or a waste stabilization pond and the treatment works provides significant biological treatment of municipal wastewater, "Equivalent Secondary Treatment" limits for BOD₅ and TSS can be implemented.

Water Quality-Based Evaluation

In addition to the technology-based limits previously discussed, the NYSDEC evaluated the discharge to determine compliance with Section 301(b)(1)(C) of the Clean Water Act. This section requires the establishment of limitations in permits necessary to meet water quality standards by July 1, 1977.

The regulations in 40 CFR 122.44(d)(1) implement Section 301(b)(1)(C) of the Clean Water Act. These regulations require that SPDES permits include limits for all pollutants or parameters which "are or may be discharged at a level which will cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality." The limits must be stringent enough to ensure that water quality standards are met and must be consistent with any available wasteload allocation (WLA).

Water Quality Criteria

Water quality regulations detailed in 6 NYCRR Parts 700-706 and ambient water quality standards and guidance values specified in TOGS 1.1.1 were applied. Specific application of the regulations and standards is detailed in Table [a] of this Appendix.

Reasonable Potential Evaluation

Reasonable potential analysis is the process for determining whether a discharge causes, has the reasonable potential to cause, or contributes to an excursion above New York State water quality criteria for toxic pollutants. When conducting a reasonable potential analysis for each pollutant of concern, factors such as receiving water classification, corresponding water quality criteria and guidance values, pollutant concentration in the effluent, dilution available in the receiving water, background concentrations and additional upstream and downstream dischargers containing the pollutant of concern are used to quantify the receiving water quality. If the expected concentration of the pollutant of concern in the receiving water exceeds the ambient water quality criteria or guidance value then there is reasonable potential that the discharge may cause or contribute to a violation of the water quality standard, and a water quality-based effluent limit or wasteload allocation for the pollutant is required. Calculations performed specifically for the effluent of this facility can be found at the end of this Appendix.

Procedure for Deriving Water Quality-Based Effluent Limits (WQBELs)

The TMDL process is a water quality based approach to implementing water quality standards. It is applied to an entire watershed or drainage basin whenever possible, but may also be applied to waterbody segments with individual or multiple pollutant sources. The TMDL analysis is carried out separately for each pollutant. It allows for the consideration of all sources of the pollutant including point sources, non-point sources, atmospheric deposition and natural background. Dependant on the complexity of the issue and the amount of data available, the analysis can be relatively simple such as a desk-top, mass-balance calculation or it can be exacting and detailed by using complex, multidimensional water quality models. The TMDL process serves a dual function in the permit development process. It provides the basis for the

reasonable potential analysis. If the reasonable potential analysis indicates that the pollutant of concern has the potential to cause or contribute to an excursion of water quality standards, the TMDL process is then used to determine the WQBELs for all sources of the pollutant to assure compliance with the standards.

Pollutant-Specific Analysis

This section outlines the basis for each of the effluent limitations in the draft permit.

Biochemical Oxygen Demand and Total Suspended Solids

The facility is a publicly owned treatment works (POTW). Therefore, the facility is subject to the technology-based limits required for BOD₅ and TSS of 40 CFR 133.102, as shown in the following table:

Parameter	30-day Average (mg/L)	7-day Average (mg/L)	Percent Removal (%)
BOD ₅	30	45	85
TSS	30	45	85

Mercury is believed to be present in this discharge solely due to one or more of the following factors: presence in rainfall; water supply; and/or low level societal use of mercury. Considering the very low levels detected in this POTW effluent, their likely source, and that the ubiquitous nature of mercury contamination currently makes it impractical for any dischargers to achieve the calculated water quality based effluent limit, it has been determined that only modest reductions in mercury may be achievable by this permittee. Therefore, a simplified mercury minimization program is considered sufficient to address mercury being discharged by this permittee.

Disinfection Requirements

Rhinebeck(T) Vanderburgh Cove SD#1 discharges into **Hudson River** Class A water. In accordance with TOGS 1.3.3 year round disinfection of all coliform and/or pathogen bearing wastes discharged into Class A waters is required.

Fecal Coliform

During periods when disinfection is required, TOGS 1.3.3 and 6 NYCRR Part 703.4 establish a minimum requirement and a water quality standard that the WWTP should achieve a monthly geometric mean of less than 200 per 100 ml. A geometric mean of samples taken within a 7 consecutive day period shall be less than 400 per 100 ml.

Total Residual Chlorine (TRC)

A TRC limit of 0.5-2.0 mg/L is included in the draft permit. 6 NYCRR Part 703.5 establishes a total residual chlorine standard of 5 µg/L. Based on Division guidance, water quality-based effluent limits will not be specified for discharge situations with greater than 80:1 dilution. Since the Hudson River provides a [$\gg 100:1$] chronic dilution ratio, the permit limit for TRC is derived from the technology-based effluent limit in accordance with TOGS 1.3.3. This section states that a maximum TRC effluent limit of 2.0 mg/l prevents excessive use of chlorine while maintaining an appropriate process control indicator for effective disinfection.

Whole Effluent Toxicity (WET) Testing

Whole effluent toxicity (WET) tests are laboratory tests that replicate to the greatest extent possible the total effect and actual environmental exposure of aquatic life to effluent toxicants without requiring the identification of specific toxicants. WET tests use small vertebrate and invertebrate species, and/or plants, to measure the aggregate toxicity of an effluent. There are two different durations of toxicity tests: acute and chronic. Acute toxicity tests measure survival over a 96-hour test exposure period. Chronic toxicity tests measure reductions in survival, growth, and reproduction over a 7-day exposure.

Federal regulations at 40 CFR 122.44(d)(1) require that permits contain limits on whole effluent toxicity when a discharge has reasonable potential to cause or contribute to an exceedence of a water quality standard.

Per TOGS 1.3.2, WET testing is not required for this facility because the following do not apply:

- there is the presence of substances in the effluent for which ambient water quality criteria do not exist.
- there are uncertainties in the development of TMDLs, WLAs, and WQBELs, caused by inadequate ambient and/or discharge data, high natural background concentrations of pollutants, available treatment technology, and other such factors.
- there is the presence of substances for which WQBELs are below analytical detectability.
- there is the possibility of complex synergistic or additive effects of chemicals, typically when the number of metals or organic compounds discharged by the permittee equals or exceeds five.
- there are Observed detrimental effects on the receiving water biota.
- previous toxicity testing performed by NYSDEC or USEPA indicated a problem.
- POTWs exceed a discharge of 1.0 MGD.
- industrial waste pretreatment programs deem WET testing necessary.

Appendix B

Individual Outfall Data Summaries and Permit Limit Development

Existing Effluent Quality and Technology Based Effluent Limits (TBEL)

Technology Based Effluent Limit (TBEL) is set based upon an evaluation of Best Available Technology Economically Achievable (BAT), Best Conventional Pollutant Control Technology (BCT), Best Practicable Technology Currently Available (BPT), and Best Professional Judgment (BPJ). BPJ limits may be set using any reasonable method that takes into consideration the criteria set forth in 40 CFR 125.3.

For the Existing Effluent Quality, the statistical methods utilized are in accordance with TOGS 1.2.1 and the USEPA, Office of Water, Technical Support Document For Water Quality-based Toxics Control, March 1991, Appendix E. Statistical calculations were not performed for parameters with insufficient data. Generally, ten or more data points are needed to calculate percentiles (See TOGS 1.2.1 Appendix D). Two or more data points are necessary to calculate an average and a maximum. Non-detects were excluded in the statistical calculations.

Water Quality Based Effluent Limits (WQBEL)

Ambient Water Quality Criteria (AWQC) and guidance values specified in "Water Quality Regulations" New York State Codes, Rules and Regulations Title 6, Chapter X, Parts 700-705 and TOGS 1.1.1 were applied to the following pollutants identified in the facilities discharge. Water Quality Based Effluent Limits (WQBEL's) were calculated by applying the TMDL process for each pollutant.

Outfall # 001/002

Effluent Parameter (Units)	Existing Effluent Quality				Technology Based Effluent Limit				Water Quality Based Effluent Limit			Permit Basis (T or WQ)	
	concentration		mass		conc.	mass	Type	Basis	AWQC	Effluent			
	Avg	Max	Avg	Max						conc.	mass		Type
Flow Rate, units = MGD	Average		Maximum		0.008		MA	BPJ, TOGS 1.3.3					
pH (SU)	6.0 Minimum		9.0 Maximum		6.0-9.0		Range	40 CFR133.102(c)	6.5 - 8.5	Tech. okay, see notes.			T
BOD ₅ (30 day), mg/l, lbs/day	30 mg/l	2.0 lb/day			30 mg/l	2.0 lb/day		40 CFR 133.102	703.3, D.O.	Tech okay, see notes.			T
BOD ₅ (7 day), mg/l, lbs/day	45 mg/l	3.0 lb/day			45 mg/l	3.0 lb/day		40 CFR 133.102	703.3, D.O.	Tech. okay, see notes.			T
UOD, (), mg/l, lbs/day								TOGS 1.3.3					
TSS (30 day), mg/l, lbs/day	30 mg/l	2.0 lb/day			30 mg/l	2.0 lb/day		40 CFR 133.102	703.2, Narr.	Tech. okay, see notes.			T
TSS (7 day), mg/l, lbs/day	45 mg/l	3.0 lb/day			45 mg/l	3.0 lb/day		40 CFR 133.102	703.2, Narr.	Tech. okay, see notes.			T
Solids, Settleable, ml/l	.1 ml/l				.1 ml/l			TOGS 1.3.3	703.2, Narr.	Tech of 0.1 ml/l okay.			T
Effluent Disinfection: [] All Year [] Seasonal from:									703.4	Year Round Class A.			T
Fecal Coliform(30 day/7 day), #/100 ml	200/400				200/400		GM	6NYCRR 703.4	703.4	Tech. okay, see notes.			T
Chlorine, Total Residual, mg/l	0.5-2.0 mg/l				2.0 mg/l			TOGS 1.3.3	0.005 mg/l	Tech. okay, see notes.			T